

because character 93 of Figure 9 does not show a pad as indicated in the specification.”

Although Applicants consider the originally submitted character 93 to adequately depict a pad, Applicants have nonetheless amended character 93 of FIG. 9 to show a pad in a manner that is similar to how pads 98, 102, and 106 are shown in FIG. 9; i.e., linear boundaries of character 93 have been replaced by curved boundaries.

The Examiner rejected claims 1-4 and 6-8 under 35 U.S.C. §102(b), as being anticipated by Furukawa (JP 10032371). The Examiner rejected claim 5 under 35 U.S.C. 103(a) as being unpatentable over Furukawa as applied to claims 1-4, 6-8 and further in view of Frey et al. (U.S. Patent 5,249,101). The Examiner rejected claims 9-10 under 35 U.S.C. 103(a) as being unpatentable over Furukawa as applied to claims 1-4, 6-8 and further in view of Nishiguchi et al. (U.S. Patent 5,214,308). The Examiner rejected claims 11-13 under 35 U.S.C. 103(a) as being unpatentable over Furukawa as applied to claims 1-4, 6-8 and further in view of Haji (U.S. Patent 5,767,008) and Bertin et al. (U.S. Patent 5,977,640). Applicants respectfully traverse the Examiner’s rejection of claims 1-13 as follows.

Applicants respectfully traverse the Examiner’s §102(b) rejection of claim 1, because Furukawa does not teach each and every element of claim 1. For example, Furukawa does not teach the element: “a second circuit line including a second conductive pad and having a second thickness that is unequal to the first thickness, wherein the second circuit line is coupled to the substrate, and wherein the second circuit line is electrically coupled to the first circuit line.”

The Examiner alleges that “Furukawa discloses (Fig. 24) substrate (13), first conductive pad with first thickness (23), second conductive pad with second thickness (25); first and second circuit line in contact; third line coupled to substrate; first and second lines mechanically coupled substrate; plated through hole (19).” Nonetheless, Fig. 24 of Furukawa shows thin pad circuit patterns (23A, 23B) as being physically separated from thick pad circuit patterns (25A, 25B).

Neither FIG. 24 nor the English-translated Abstract in Furukawa indicates any electrical coupling whatsoever between thin pad circuit patterns (23A, 23B) and thick pad circuit patterns (25A, 25B). In fact, the Abstract specifically states that the thin pad circuit patterns (23A, 23B) and thick pad circuit patterns (25A, 25B) are each on an “*insulated* substrate (13)” (emphasis added). Thus if the thin pad circuit patterns (23A, 23B) and the thick pad circuit patterns (25A, 25B) represent a first circuit line and a second circuit line, respectively, then Furukawa fails to teach “wherein the second circuit line is electrically coupled to the first circuit line” as required by claim 1. Accordingly, Applicants respectfully contend that Furukawa does not anticipate claim 1 and that claim 1 is in condition for allowance.. In addition, since claims 2-13 depend from claim 1, Applicants further contend that claims 2-13 are likewise in condition for allowance.

Claims 2-13 each have independent patentable features not disclosed by the references cited by the Examiner. As a first example, claim 2 has the following feature not disclosed by Furukawa: “wherein the first circuit line is in mechanical contact with the second circuit line.” As a second example, claim 3 has the following feature not disclosed by Furukawa: “a third circuit line coupled to the substrate, wherein the third circuit line has a third thickness that is unequal to both the first thickness and the second thickness, wherein a portion of the third circuit line is electrically coupled to a portion of the first circuit line, and wherein a portion of the third circuit line is electrically coupled to a portion of the second circuit line.” As a third example, claim 4 has the following feature not disclosed by Furukawa: “wherein an end of the first circuit line includes the first conductive pad, and wherein an end of the second circuit line includes the second conductive pad.”

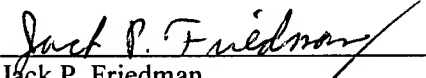
CONCLUSION

In summary, based on the preceding arguments, Applicants respectfully believe that all independent claims and dependent claims, namely claims 1-13, meet the acceptance criteria for allowance and therefore request favorable action. If the Examiner believes that anything further would be helpful to place the application in better condition for allowance, Applicants invite the Examiner to contact Applicants' representative at the telephone number listed below.

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